CLAIMS

What is claimed is:

1. A method for determining a likely return on investment from combinations of

    investment projects and selecting a combination having a maximum return on

5   investment, said investment projects being related to product categories, each

    product category having a given cost model and demand model, said method

    comprising the steps of:

    forming a plurality of candidate investment project combinations including all

        possible projects in all possible combinations;

10 eliminating from further consideration project combinations which do not meet

        conditions of a set of constraints;

    determining a new optimal price and changes to the cost and demand models

        associated with each product category for each of the project

        combinations;

15 estimating a value added by each project combination for each set of project

        combinations using the new optimal prices and the changes to the costs and

        demand models;

    identifying the project combination which yields maximum value added; and

    providing an output containing said estimated values added and identified project

20   combination.

2. The method as set forth in Claim 1 wherein said step of elimination comprises eliminating investment combinations which include projects which are mutually exclusive.

3. The method as set forth in Claim 1 wherein said step of elimination comprises eliminating investment combinations which include projects which are dependent on other projects which are excluded from the combination.

4. The method as set forth in Claim 1 wherein said step of identifying a project combination which yields maximum value added comprises:

determining Net Present Value for a base case in the scenario that none of the project combinations are undertaken, and a Net Present Value for each project combination;

assigning a Value Added for each project combination by subtracting said base case Net Present Value from each respective project combination Net Present Value.

5. The method as set forth in Claim 1 wherein said step of providing an output comprises providing a computer readable output.

6. The method as set forth in Claim 1 wherein said step of providing an output comprises providing a human readable output.

7. The method as set forth in Claim 1 further comprising the steps of:

forming a set of all Maximal Investment Combinations; and

applying an Increasing Mutual Returns Rule to said set of all

Maximal Investment Combinations in order to further reduce

a total number of project combinations for analysis.

8. A computer readable medium encoded with software for determining a likely

5 return on investment from combinations of investment projects and selecting a

combination having a maximum return on investment, said investment projects

being related to product categories, each product category having a given cost

model and demand model, said software causing a computer to perform the steps

of:

10 forming a plurality of candidate investment project combinations including all

possible projects in all possible combinations;

eliminating from further consideration project combinations which do not meet

conditions of a set of constraints;

determining a new optimal price and changes to the cost and demand models

15 associated with each product category for each of the project

combinations;

estimating a value added by each project combination for each set of project

combinations using the new optimal prices and the changes to the costs and

demand models;

20 identifying the project combination which yields maximum value added; and

providing an output containing said estimated values added and identified project

combination.

9.   The computer readable medium as set forth in Claim 7 wherein said software for

candidate project combination elimination according to constraints comprises

5   software for eliminating investment combinations which include projects which are

mutually exclusive.

10.   The computer readable medium as set forth in Claim 7 wherein said software for

candidate project combination elimination according to constraints comprises

software for eliminating project combinations which include projects that are

10   dependent on other projects which are excluded from the combination.

11.   The computer readable medium as set forth in Claim 7 wherein said software for

identifying a project combination which yields maximum value added comprises

software for performing the steps of:

determining Net Present Value for a base case in the scenario that none of

15   the project combinations are undertaken, and a Net Present Value

for each project combination;

assigning a Value Added for each project combination by subtracting

said base case Net Present Value from each respective project

combination Net Present Value.

20   12.   The computer readable medium as set forth in Claim 7 wherein said software for

providing an output comprises software for providing a computer readable output.

13.   The computer readable medium as set forth in Claim 7 wherein said software for

providing an output comprises software for providing a human readable output.

14.   The computer readable medium as set forth in Claim 7 wherein said software

further comprises software for performing the steps of:

forming a set of all Maximal Investment Combinations; and

applying an Increasing Mutual Returns Rule to said set of all

Maximal Investment Combinations in order to further reduce

a total number of project combinations for analysis.

15.   A system for determining a likely return on investment from combinations of

investment projects and selecting a combination having a maximum return on

investment, said system comprising:

a product category data store having a plurality of product categories, and having

a plurality of cost models and demand models for a plurality of time

intervals for each said product category;

a investment projects data store containing a plurality of investment project data

sets, each data set containing dependency and exclusivity relationships,

definitions of product categories affected by a project, fixed costs for a

plurality of time intervals, and a means for modification of cost models and

demand models; and

a parallel investment evaluator adapted to access said investment projects data

store and product category data store, to determine a combination of

investment projects which yield a maximum value added, and to output

said project combination and maximum value added.

5   16.   The system as set forth in Claim 15 wherein said parallel investment evaluator is

adapted to perform the steps of:

forming a plurality of candidate investment project combinations including all

possible projects in all possible combinations;

eliminating from further consideration project combinations which do not meet

10   conditions of a set of constraints;

determining a new optimal price and changes to the cost and demand models

associated with each product category for each of the project

combinations;

estimating a value added by each project combination for each set of project

15   combinations using the new optimal prices and the changes to the costs and

demand models;

identifying the project combination which yields maximum value added; and

providing an output containing said estimated values added and identified

project combination.

20   17.   The system as set forth in Claim 16 wherein said parallel investment evaluator is

further adapted to perform the steps of:

determining a Net Present Value for a base case in the scenario that none

of the project combinations are undertaken, and a Net Present

Value for each project combination;

5   assigning a Value Added for each project combination by subtracting

said base case Net Present Value from each respective project

combination Net Present Value.

18.   The system as set forth in Claim 16 wherein said parallel investment evaluator is

further adapted to perform the steps of:

10   forming a set of all Maximal Investment Combinations; and

applying an Increasing Mutual Returns Rule to said set of all

Maximal Investment Combinations in order to further reduce

a total number of project combinations for analysis.

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